

STATE OF MAINE

DEPARTMENT OF MARINE RESOURCES

**IN THE MATTER OF THE APPLICATION OF GREAT)
EASTERN MUSSEL FARMS FOR AN AQUACULTURE)
LEASE LOCATED IN THE MOUNT DESERT NARROWS,))
LAMOINE, HANCOCK COUNTY, MAINE)**

**FINDINGS OF FACT,
CONCLUSIONS OF LAW
AND DECISION**

On September 24, 2003, Great Eastern Mussel Farms (hereafter referred to as GEMF) of Tenants Harbor, Maine applied for an aquaculture lease totaling 37.04 acres in the coastal waters of the State of Maine, located in the Mount Desert Narrows in Lamoine, Hancock County, Maine. The applicant requested the lease for a term of ten (10) years for the purpose of cultivating blue mussels (*Mytilus edulis*) using bottom culture techniques. The application was accepted as complete on September 30, 2003. A public hearing on this application was held on February 4, 2004 at 6:00 p.m. in Lamoine.

Approval of aquaculture leases is governed by 12 M.R.S.A. §6072. This statute provides that a lease may be granted by the Commissioner of the Department of Marine Resources (DMR) if it is determined that the project will not unreasonably interfere with the ingress and egress of riparian owners; navigation; fishing or other uses of the area, taking into consideration the number and density of aquaculture leases; significant wildlife habitat and marine habitat or the ability of the site and surrounding marine and upland areas to support ecologically significant flora and fauna; or the use or enjoyment within 1,000 feet of municipally, state or federally owned beaches, parks, or docking facilities. The Commissioner must also determine that the applicant has demonstrated that there is an available source of organisms to be cultured for the lease site and that the lease will not result in an unreasonable impact from noise or lights at the boundaries of the lease site.

Evidence Introduced Concerning the Nature
and Impact of the Proposed Lease

The evidentiary record before the Department regarding this lease application includes the Department file (Exhibit 1), including the application (Exhibit 2) and the Department site report (Exhibit 3), and the record of the February 4, 2004 public hearing. At the public hearing, testimony was given by the applicant, represented by Mark Peterson, Brent Bradford, and Adam Bradford, the Department's Aquaculture Environmental Coordinator, Jon Lewis, and three members of the public.

Three employees of GEMF, Mark Peterson, Adam Bradford and Brent Bradford, provided testimony at the hearing. Mr. Peterson testified that GEMF currently operates an aquaculture lease, totaling 18.8 acres, in the area of the proposed lease and this application is a proposed expansion of that lease area. He stated that the purpose for the expansion is to increase growing capacity and to reduce potential conflicts with other mussel draggers. The proposed lease encompasses the entire current lease site and expands the site to the north and east. According to the application and the testimony, the proposed aquaculture lease is sought to raise blue mussels. The applicant requested a lease site totaling 37.04 acres and a lease term of 10 years.

The proposed lease activities would be conducted in the same manner as under the current lease. Those lease activities consist of the direct planting of mussels on the bottom of the lease area. Wild mussel seed would be planted on the bottom of the lease site in the fall. Approximately one year later, market-size mussels would be harvested from the lease site by dragging. Harvesting of approximately 500 bushels per day will occur until the bed is clean. According to Brent Bradford, harvesting will take place approximately 3-4 days per week, 3 hours per day. According to the application, the applicant does not plan to use lighting at the lease site. Additionally, the only power equipment that will be used on the site is a 60-foot mussel dragger that is currently used on the site. The vessel will be on site during the day for seeding and

harvesting and has been muffled. According to the application, all seed shellfish would be obtained from wild beds located in Washington and/or Hancock County.

In accordance with Department regulations, Chapter 2.10(3), the applicant provided an environmental characterization of the proposed lease area. According to the application, the bottom of the lease site varies from soft mud to sandy cobble substrate. The depths at mean low water are estimated to be between 1 and 12 feet. Local flora and fauna include an abundance of blue mussels and periwinkles, and a common occurrence of rock crabs, starfish, whelks, moon snails, barnacles, sand worms, mud shrimp, sponges, hydroids, and colonial tunicates. No eelgrass was observed at the proposed lease site. According to Brent Bradford, there is a natural set of mussels along the shore, outside the proposed lease boundaries. He testified that the mussels located within the proposed lease boundary, to the north of the existing site, are not a natural set, but a result of GEMF's lease operations. According to the application, the current flow is estimated to be less than 40 cm/sec. and flows in an east/west direction. According to a letter from the Maine Department of Inland Fisheries and Wildlife submitted with the application, there are no wildlife habitats that would be unreasonably compromised by the proposed lease.

According to the application, the main thread of the Mount Desert Narrows is located approximately 1000 feet south of the proposed lease site. There is some small vessel traffic that traverses across the lease area. According to the applicant, the navigational hazards should be minimal because there will be no structures on the lease site. Additionally, according to the application, there are no moorings located within the proposed lease area. According to the application, there is minimal commercial fishing within the proposed lease site, including occasional crab and lobster fishing. Brent Bradford testified that there has been no dragging in the proposed lease expansion area for three years. He testified that the adjacent leaseholder drags outside of the proposed lease boundary. He stated that there are currently no shellfish beds in the expansion area. He testified that there is enough feed in the area to support the applicant's lease and the adjacent lease.

According to Brent Bradford, GEMF and the adjacent leaseholder have had problems with poachers in the past. He testified that the leases should be closer together to prevent draggers from going in between the leases and eventually going onto the lease sites. Adam Bradford suggested that the adjoining leases share a boundary, thus eliminating any space in between the two leases.

The Department's Aquaculture Environmental Coordinator (AEC) and his assistant conducted a site visit at the proposed lease area on November 4, 2003. During the site visit, a diver survey, utilizing an underwater video camera, was performed. The AEC created a site report summarizing the information obtained during the site visit and provided testimony regarding the site report at the public hearing.

According to the report and the AEC's testimony, the proposed site is located in Mount Desert Narrows, in water depths of an average of 8.1 feet at mean low water. The topography of the proposed lease site consists of relatively flat, mud bottom. A rocky outcropping was noted immediately north of corner B. According to the AEC's report, currents are tidally driven in an east/west direction through the narrows and are expected to turn north into the Jordan River on a flood tide. The major faunal component observed in the area was blue mussels. Sand shrimp were commonly observed. In areas where the lease was recently dragged, the bottom was relatively barren of flora and fauna. In areas where patches of blue mussels were noted, kelp, sea stars and crabs were observed. A white cloud observed over the mussels indicated that some mussels in the area were spawning. The AEC testified that no eelgrass was observed in or near the proposed lease area. He compared the dive video from the site visit to a video taken in 1994 of the existing lease area. He stated that the 1994 video showed two small pieces of eelgrass. He stated that he looked at 1996 aerial photography and that the photography indicated that there was no eelgrass in the proposed lease area in 1996. He testified that he does not know what is causing the decline in eelgrass in the area. He also testified that there is plenty of feed in the bay to support the proposed lease site and the adjacent lease. According to the AEC's report the proposed lease is located in an area classified as open for the harvest of

shellfish by the Department's Water Quality Division. Additionally, there are no Essential or Significant Wildlife Habitats associated with the proposed activities. The AEC testified that he does not believe that the proposed activities would unreasonably interfere with ecologically significant flora and fauna.

According to the AEC, no moorings were observed within the boundaries of the proposed lease site during the site visit. According to the AEC, the proposed lease activities will not interfere with riparian ingress or egress because the applicant does not intend to use any structures on the lease site. Additionally, according to the AEC, the proposed activities will not interfere with navigation in the area, because the lease site will not contain any aquaculture gear. Due to shallow water depths, limited vessel traffic is expected in the area of the proposed lease site. The only interference with navigation may be the need to deviate from course to avoid the applicant's vessel during harvest and seeding.

According to the AEC's report, no commercial or recreational fishing was observed within the boundaries of the proposed lease site during the site visit, but limited lobster and crab fishing is expected in the area. According to the AEC, commercial mussel dragging is likely to occur in the northern portion of the proposed lease site. The nearest aquaculture lease site is located adjacent to the proposed lease site, approximately 9-58 feet from the proposed western boundary of the proposed lease. The adjacent lease, SMIT JR2, is 89.78 acres and is also used for bottom culture of blue mussels. According to the AEC, the Department has received complaints from both leaseholders regarding the other's disregard for lease boundaries when harvesting. The AEC recommended that the buffer zone between the two sites be increased, that harvest along the western boundary of the proposed site be performed parallel to the boundary and that no dragging be permitted on the lease site if boundaries are not properly marked.

Three members of the public testified regarding the proposed activities. Matthew Beal testified that he is the harvest vessel operator for the adjacent leaseholder, Ralph Smith. He stated that he also occasionally drags for mussels in the area north of the current lease site,

within the proposed lease boundary, and he also drags between the two lease sites. He testified that he observed other draggers in the area two years ago, but otherwise, there are no other draggers that drag for mussels in the proposed lease area.

Peter Hartline, representing riparian landowner Old Point, Inc. testified regarding the proposed lease. He testified that the portion of the proposed lease area close to the intertidal zone is naturally encrusted by mussels. He requested that the Department delete the portion of the proposed lease that consists of water depths less than -1.5 feet at mean low water. Mr. Hartline indicated on a map the approximate location of the naturally-occurring mussel bed. The area depicted is located on either side of proposed corner B. He testified that the current northeast corner of the lease site is at the edge of the mussel bed. Mr. Hartline testified that he informally assessed the loss of eelgrass in the lease area. He testified that former eelgrass beds have been eliminated, but that he cannot prove that it is due to the applicant's lease operations.

Ralph Smith, the adjacent leaseholder provided testimony regarding the proposed lease application. He testified that the leases should abut, and they should share one set of markers. He also recommended that navigation by either leaseholder in the other's lease be prohibited. He testified that he does not support the extension of the lease northward, toward shore, because he drags in that area. He stated that there aren't other draggers using that area now. He also stated that he is concerned about there being sufficient feed in the area to support both leases. He presented a letter from a customer that stated that mussel yield has decreased over the years. Mr. Smith testified that it is the outside draggers that cause the conflicts.

Findings of Fact

The proposed lease is located Mount Desert Narrows, encompassing an existing 18.8-acre lease and expanding that lease area to the north and east. The proposed lease activities consist of freely planting mussels on the bottom of the lease site. Therefore, there will be no structures on the lease site, other than buoys marking the boundaries. There are no moorings located in the lease area. No use of riparian land was requested or required. Based on this

evidence, I find that the lease will not unreasonably interfere with the ingress and egress of riparian owners.

The proposed lease is located in shallow water depths of approximately 1 to 12 feet at mean low water. Navigation in the area consists of small vessel traffic. The lease area will be used for bottom culture only and will therefore not contain any gear that would pose a navigable hazard. Based on the foregoing, I find that the proposed lease will not unreasonably interfere with navigation.

Fishing in the area of the proposed lease site consists of lobster and crab fishing and mussel dragging. The applicants will allow lobster fishing and recreational fishing on the lease site. The adjacent leaseholder, Ralph Smith, drags for mussels north of the existing lease site. No other draggers currently drag that area. Mr. Smith has a 90-acre lease for the bottom culture of blue mussels, located adjacent to the proposed lease. A natural set of mussels is located adjacent to the intertidal zone. In order to exclude the natural mussel bed from the lease site, the lease boundary shall be revised, as set forth later in this decision. The area of the proposed lease is classified as open for the harvest of shellfish. There is sufficient feed in the area to support the growth of mussels on both lease sites. I find that the proposed lease, as revised, will not unreasonably interfere with fishing or other uses of the area.

Existing flora and fauna observed at the proposed site consists of blue mussels, periwinkles, rock crabs, starfish, whelks, moon snails, barnacles, sand worms, mud shrimp, sponges, hydroids, and colonial tunicates. There is no eelgrass located in the proposed lease site or surrounding area. The cause of the decline of eelgrass in the area is unknown. The proposed site is not located within an Essential Habitat. Based on this evidence, I find that the proposed activities will not unreasonably interfere with significant wildlife habitat and marine habitat or with the ability of the site and surrounding marine and upland areas to support ecologically significant flora and fauna.

All seed shellfish will be obtained from wild beds in Washington and/or Hancock Counties. Based on this evidence, I find that there is an available source of blue mussels.

The proposed lease site is not located within 1,000 feet of any municipally, state, or federally owned beaches, parks, or docking facilities. Based on this evidence, I find that the proposed lease site activities will not unreasonably interfere with public use or enjoyment within 1,000 feet of any municipally, state, or federally owned beaches, parks, or docking facilities.

The only power equipment used on site will be the vessel used for seeding and harvesting. Additionally, lighting will not be used at the lease site. I find that the proposed lease will not result in an unreasonable impact from noise or lights at the boundaries of the lease site.

In order to address some of the concerns raised and to alleviate misunderstandings with the adjacent leaseholder, I find that the lease boundaries shall be modified from those submitted in the application. The modified boundaries create a shared boundary with the adjacent leaseholder and retain the original northeast corner of the existing site, in order to ensure lease site does not include the area near the intertidal zone that contains a natural set of blue mussels. The area within the revised boundaries was included in the Department's review. The following lease description shall define the new lease area: STARTING at the point Latitude 44°26'55.98"N, Longitude 68°20'09.90"W (datum NAD83/WGS84), and point of beginning; thence 110.58° True, a distance of 1,538.89 feet to corner B (44°26'50.639"N, 68°19'50.040"W); thence 48.14° True, a distance of 455.59 feet to corner C (44°26'53.639"N, 68°19'45.360"W); thence 112.81° True, a distance of 297.48 feet to corner D (44°26'52.50"N, 68°19'41.58"W); thence 220.68° True, a distance of 600.94 feet to corner E (44°26'48.00"N, 68°19'46.98"W); thence 242.28° True, a distance of 457.26 feet to corner F (44°26'45.90"N, 68°19'52.56"W); thence 266.10° True, a distance of 1340.84 feet to corner G (44°26'45.00"N, 68°20'11.00"W); thence 04.10° True, a distance of 1115.30 feet to corner A and point of beginning. A map has been included with this decision that depicts the existing site, the proposed site, the revised site and the adjacent site. The total lease acreage in this revised area is 31.62 acres. In order to clearly identify lease boundaries, each corner of the lease area shall be marked, and there shall

also be marker buoys located every 200 feet around the lease boundary. There shall be no activity on the lease site unless all of the markers are in place.

Conclusions of Law

Based on the above findings, I conclude that:

1. The aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of any riparian owner;
2. The aquaculture activities proposed for this site will not unreasonably interfere with navigation;
3. The aquaculture activities proposed for this site will not unreasonably interfere with fishing or other uses of the area, taking into consideration the number and density of aquaculture leases in the area;
4. The aquaculture activities proposed for this site will not unreasonably interfere with significant wildlife habitat and marine habitat or with the ability of the site and surrounding marine and upland areas to support ecologically significant flora and fauna;
5. The applicant has demonstrated that there is an available source of blue mussels;
6. The aquaculture activities proposed for this site will not unreasonably interfere with public use or enjoyment within 1,000 feet of municipally, state or federally owned beaches, parks, or docking facilities; and
7. The aquaculture activities proposed for this site will not result in an unreasonable impact from noise or lights at the boundaries of the lease site.

Accordingly, the evidence in the record supports a finding that the proposed aquaculture activities meet the requirements for the granting of an aquaculture lease set forth in 12 M.R.S.A. §6072.

Decision

Based on the foregoing, the Commissioner grants the applicants' requested aquaculture lease of 31.62 acres, as revised, from the date of this decision for the purpose of cultivating blue mussels (*Mytilus edulis*) using bottom culture techniques. The applicant shall pay the State of Maine rent in the amount of \$50.00 per acre per year. The applicant shall post a bond or establish an escrow in the amount of \$500 conditioned upon their performance of the obligations contained in the aquaculture lease documents and all applicable statutes and regulations.

Conditions to be Imposed on Lease

The Commissioner may establish conditions that govern the use of the lease area and impose limitations on aquaculture activities. Conditions are designed to encourage the greatest multiple, compatible uses of the lease area, while preserving the exclusive rights of the lessee to the extent necessary to carry out the purposes of the aquaculture law.

The following conditions are placed on this lease:

- (1) navigation, lobster and crab fishing, and recreational boating and fishing shall be allowed on the lease;
- (2) dragging in the lease area is prohibited by persons other than the leaseholder;
- (3) the lease area shall be marked in accordance with U.S. Coast Guard and Department of Marine Resources regulations Chapter 2.80;
- (4) in addition to the required corner markings, the lease boundary shall be marked by buoys every 200 feet;
- (5) there shall be no activity on the lease site unless all markers are in place; and
- (6) dragging along the western boundary that is shared by the adjacent lease holder shall be performed parallel to the boundary line.

The Commissioner may commence revocation procedures if he determines that substantial aquaculture has not been conducted within the preceding year or that the lease activities are substantially injurious to marine organisms. If any of the conditions or requirements imposed in this decision, in the lease, or in the law are not being observed, the Commissioner may revoke the aquaculture lease.

Dated: _____

George D. Lapointe (Commissioner)
Department of Marine Resources